NOAA, NATIONAL WEATHER SERVICE, WEATHER FORECAST OFFICE

Miami, Florida 33165

http://weather.gov/southflorida

June 20 to 26 is National Lightning Safety Awareness Week

When Thunder Roars, Go Indoors!

Doral, FL: June 18, 2010 (Photo by Dan Gregoria, NWS Miami

The week of June 20-26 has been designated by NOAA's National Weather Service as Lightning Safety Awareness Week. Lightning has special significance in Florida, since our state leads the

nation in lightning strikes (Figure 1). Unfortunately, this means that Florida also leads the nation deaths and injuries caused by lightning.

South Florida is no exception to the overall state trend. To date since 1959, 98 people have been killed by lightning in the three-county area of Miami-Dade, Broward and Palm Beach. This is the greatest total number of lightning deaths of any three contiguous counties in the United States. The long term yearly averages for lightning casualties in the south Florida mainland are two deaths and nine injuries. South Florida averages between 80 and 100 thunderstorm days per year (Figure 2).

So far in 2010, there has been one injury attributed to lightning in south Florida; a woman who was struck by lightning outside her home in Jupiter on June 1.

Historically speaking, the months of June, July and August are the deadliest months from lightning strikes. This is due to the combination of south Florida's nearly daily summer thunderstorms and the plethora of outdoor activities held during this time in which children are out of school. Nevertheless, lightning is a threat year-round in south Florida, and lightning casualties have been noted in every month except January. Statistics also show that persons 10 to 19 years or age are the most likely to be killed by lightning in Florida, with those in their 30s the second most likely group.

Sadly, the vast majority of these lightning casualties could have been prevented had preventive actions been taken.

Perhaps the greatest lightning myth is that if it is not raining, lightning can't strike. Lightning has been known to strike up to 10 miles or more away from the main thunderstorm core, and frequently occurs within 5 miles of the thunderstorm core. This type of lightning is often referred to as a "bolt from the blue", but actually originates from the sides of a nearby thunderstorm cloud and extends out horizontally from the cloud for a few miles before reaching the ground. At least three south Florida lightning-related deaths in recent years were from lightning striking outside the rain area. Although many people believe this type of lightning is rare, it occurs in virtually every thunderstorm. The key to remaining safe from this type of lightning strike is to keep an eye to the sky and watch for darkening skies on the horizon along with distant rumbles of thunder. Don't just look overhead for signs of an approaching storm!

The main thing to remember regarding lightning safety is: being outside is never safe during a thunderstorm! This includes park pavilions, picnic shelters and baseball dugouts which provide a false sense of safety since they are covered. Bodies of water and trees are also very dangerous places to be during a thunderstorm.

Although being inside a hard-topped metal vehicle is safer than being outside, it can also provides a false sense of safety and should never be a substitute for going indoors unless there is no completely enclosed building nearby. Vehicles are relatively safe providing that you are

not in contact with the outside shell of the car. This means placing your arms and hands on your lap and away from the window and steering wheel. Convertible automobiles offer no protection from lightning.

Fully enclosed buildings are the safest places to be during a thunderstorm, but even here there are places to avoid. Stay away from open doors, windows, screened porches and open garages, stoves, metal pipes, sinks and plugged-in electrical devices. Stay out of the shower or bathtub and off the toilet. Do not use a corded telephone or computer. Unplug major appliances such as televisions and air conditioners. Lightning can enter the house through electrical, telephone and plumbing connections.

For boaters, a measure of last resort is to crouch down in the center of the boat away from the mast or other metal hardware. Rubber boots offer little protection. Swimming, wading, snorkeling and scuba diving are not safe activities during thunderstorms.

Persons struck by lightning receive a severe electrical shock and may be burned, however they carry no electrical charge and can be attended to safely. An unresponsive person can be revived by applying CPR. Other persons who appear only stunned may also need medical attention.

An important lightning safety tip to remember is the following:

When outdoors, keep an eye on the sky. Look for darkening clouds, flashes of lightning or increasing wind which may be signs of an approaching thunderstorm. Get to a safe shelter immediately if you hear thunder. Remain in safe shelter for 30 minutes after the last clap of thunder. Do not be fooled by sunshine or blue sky.

Know the weather forecast before you head outdoors, especially if you are responsible for the safety of others. A portable NOAA All-Hazards Radio is a great way to monitor the latest forecasts and warnings while outdoors. National Weather Service products such as the Hazardous Weather Outlook and Surf Forecast describe the daily lightning danger in south Florida on a four-tiered scale ranging from none, to slight, to moderate to high. However, any thunderstorm can produce a lightning flash which can kill you and those nearby. Products such as the Short Term Forecast, Special Weather Statements and Severe Thunderstorm Warnings give information on potentially deadly lightning in your area. These products can be found on the Miami-South Florida National Weather Service website at weather.gov/southflorida or through NOAA All-Hazards Radio.

For further information go to the following web site: http://www.lightningsafety.noaa.gov/

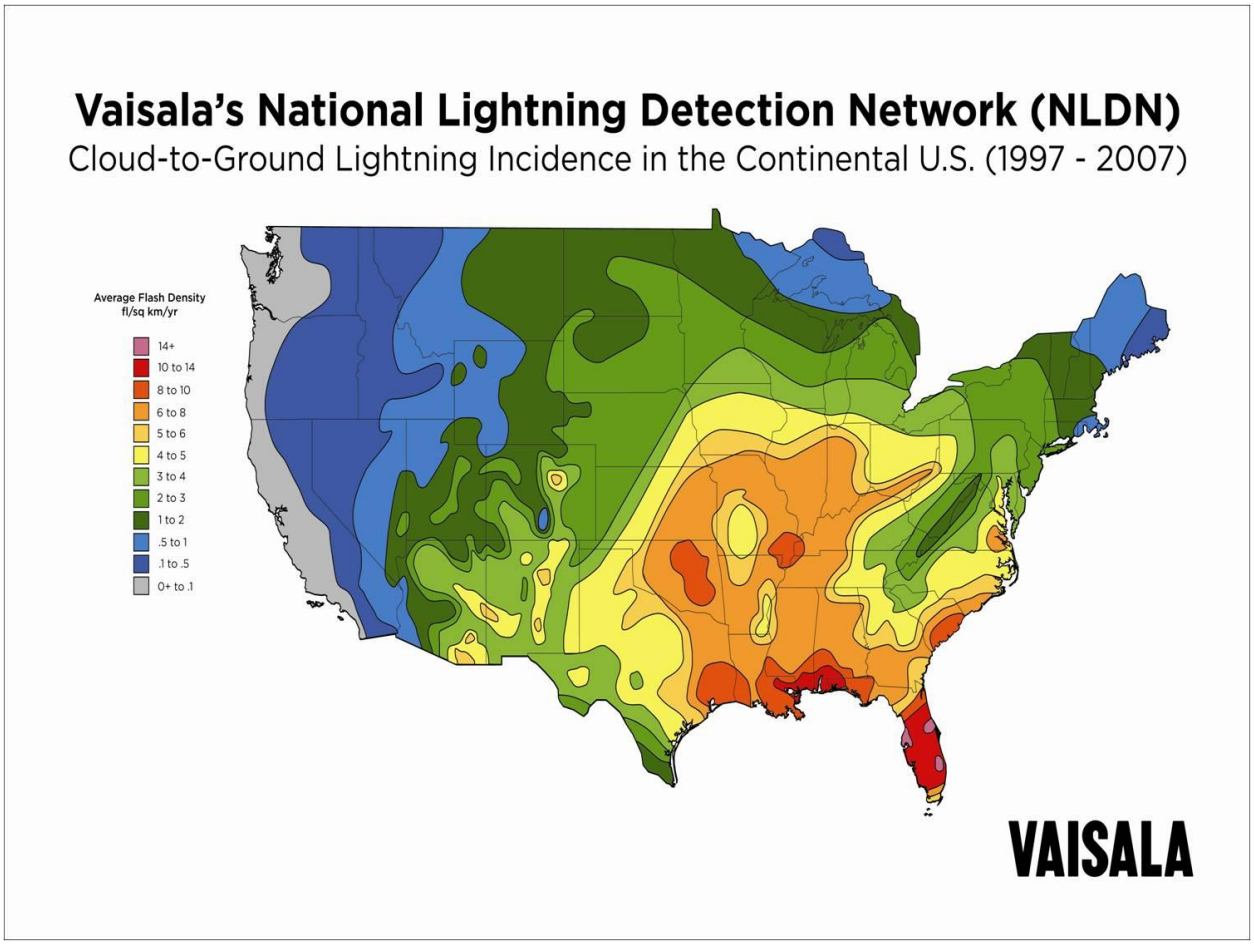

***Figure 1**: Cloud-to-Ground lightning flash density from 1997-2007 (courtesy of Vaisala)*

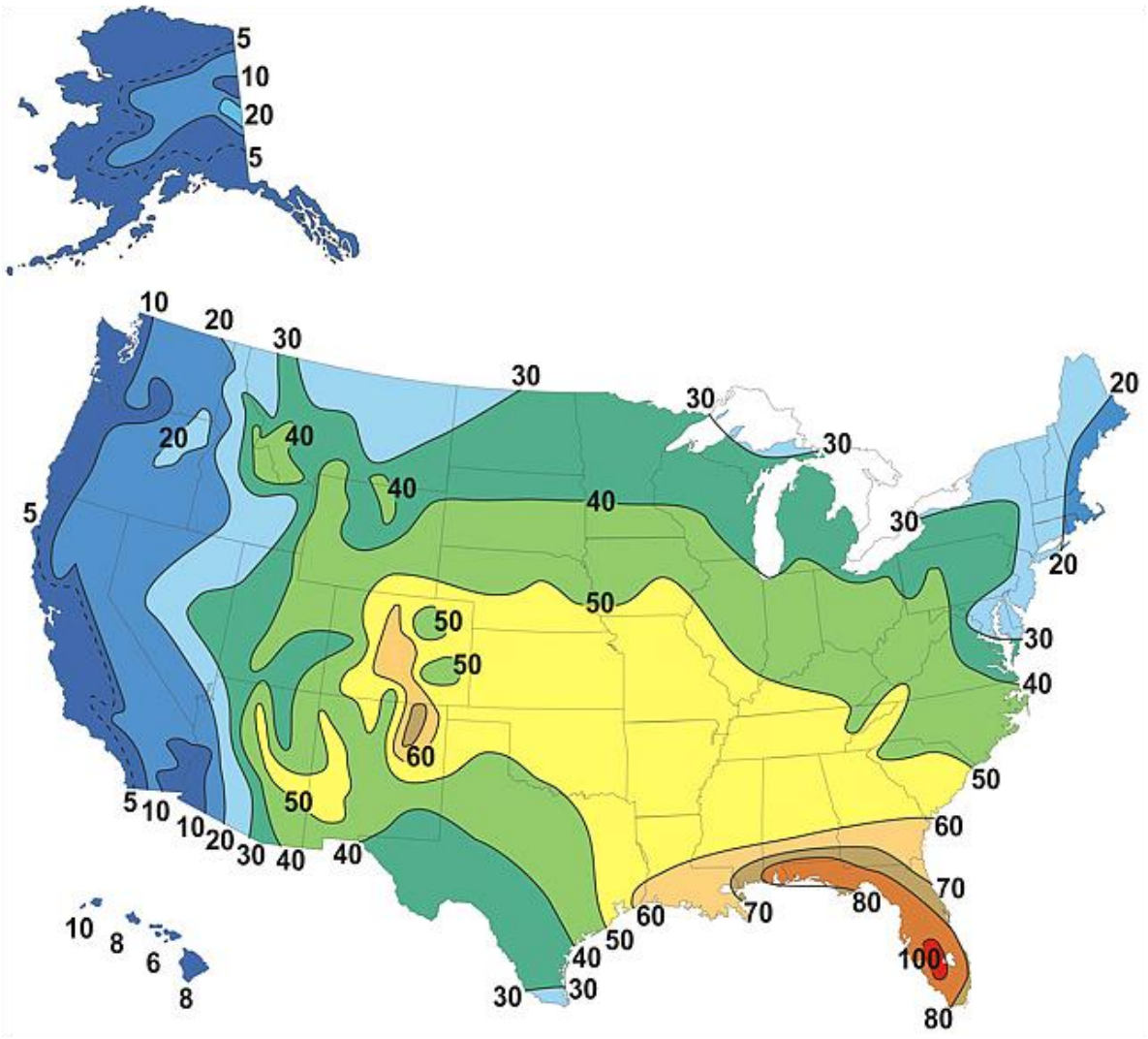

Figure 2: *Average number of thunderstorm days per year*